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# **Little Hope Creek Wastewater Improvement Project: Phase 1**

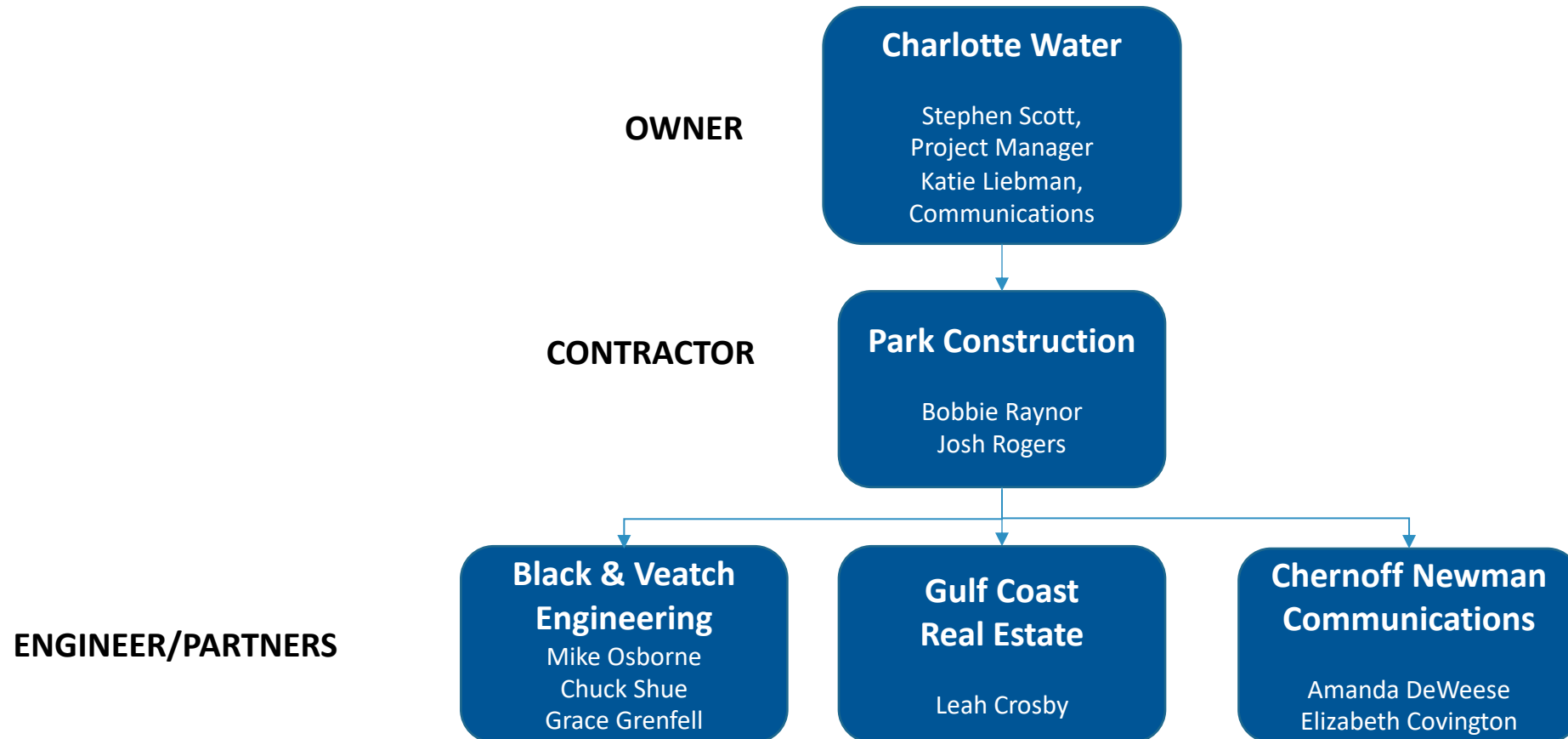
**VIRTUAL PUBLIC MEETING: APRIL 21, 2021**

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# Agenda

- ▶ **Welcome**
- ▶ **Introduce Project Team**
- ▶ **Project Overview**
- ▶ **Progress**
- ▶ **Construction Details/Timeline**
- ▶ **Activities to Expect**
- ▶ **Q&A**

# Project Team



# Project Overview

- ▶ Current wastewater system in the Little Hope Creek basin was primarily built in the 1950s to 1960s and is in dire need of repair.
- ▶ Unusually high amounts of groundwater and stormwater penetrating the existing pipeline.
- ▶ History of sanitary system overflows in the area.
- ▶ With development in the area, the capacity of the system must be increased.



# Current Condition



# Project Goals

- ▶ Improve the wastewater system worn by age, high use, and natural and man-made obstructions.
- ▶ Increase wastewater capacity to meet current and future needs.
- ▶ Reduce the risk of sewer overflows.
- ▶ Protect the water quality in Little Hope Creek.

# Project Overview

- ▶ Approximately 33,000 linear feet of wastewater pipe
- ▶ Existing wastewater pipeline ranges from 8-inch to 24-inch diameter; to be replaced with 12-inch to 36-inch pipe
- ▶ Project will be constructed in 3 phases
  - Phase 1: Tyvola Road, edge of Marion Diehl to Seneca Place
  - Phase 2: Follows Little Hope Creek from Seneca Place to Hartford Ave at Belton Street
  - Phase 3: Along three Little Hope Creek tributaries in Madison Park and Collingwood



# Project Map

## Phase 1



# Project Map

## Phase 2



# Project Map

## Phase 3



# Project Progress: Phase 1

*What's been done to date?*

- ▶ Land surveying and underground utility markings
- ▶ Flow metering and soil sampling
- ▶ Geotechnical investigations
- ▶ Video inspections
- ▶ Design of new pipeline
- ▶ Easement acquisitions
- ▶ Pre-blast surveys
- ▶ Intermediate point repairs → ongoing



# Construction

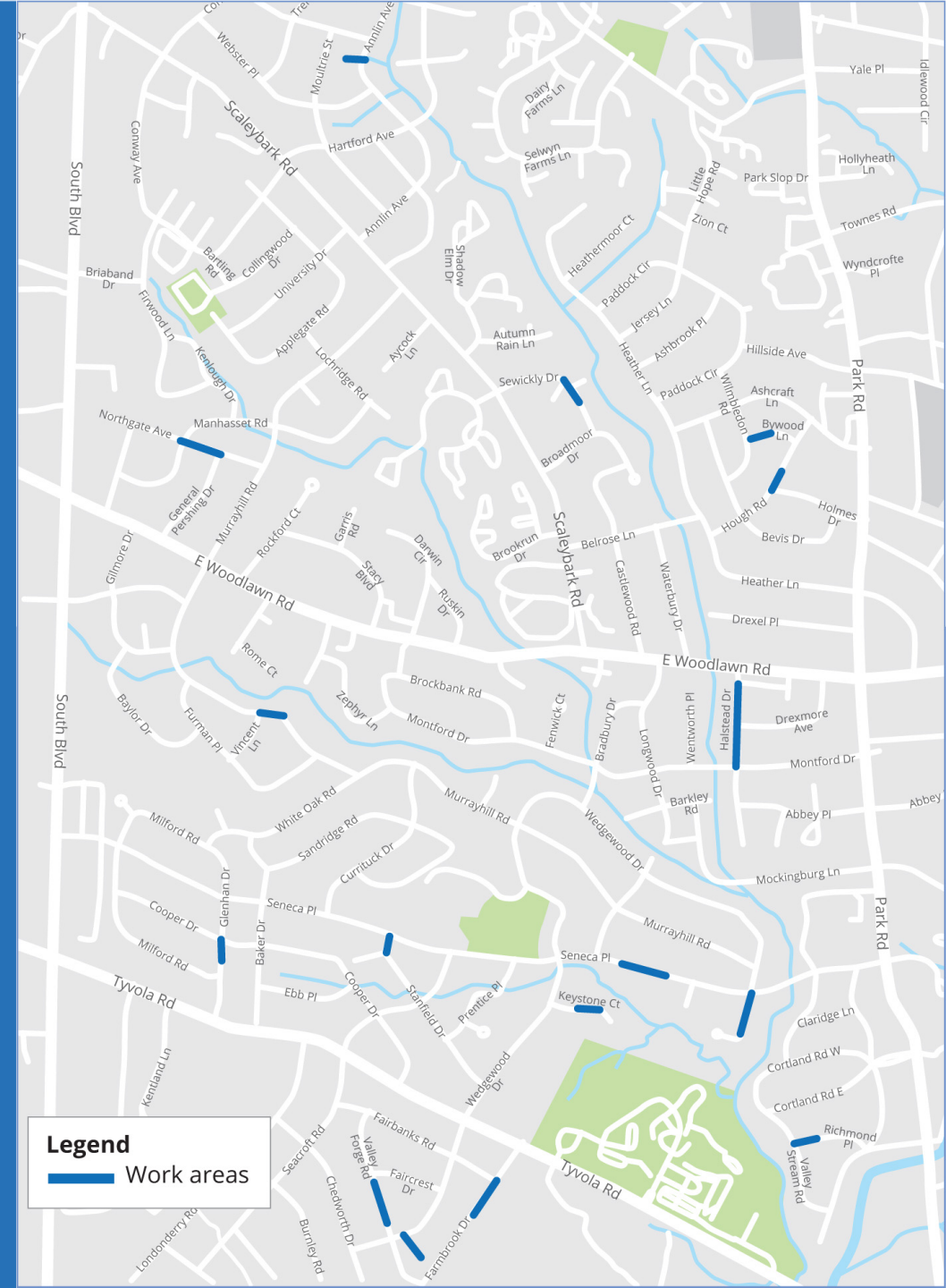


# Construction Timeline

- ▶ Intermediate repairs: began October 2020 and ongoing through the month of May
- ▶ Phase 1 construction: beginning May/June 2021 and expected 8 months

# Intermediate Repairs

- ▶ Cured in Place Pipe repairs: bypass pumping is required during work
- ▶ Point repairs: open cutting and replacing pipe segment
- ▶ Work in streets and existing easements and not on private property



# Phase 1 Construction Activities

- ▶ Clearing and trimming within easements
- ▶ Moving equipment on site
- ▶ Pipe delivery and storage
- ▶ Establishing a safe work zone
- ▶ Traffic control measures (as needed)
- ▶ Trench digging, placing pipe and back filling
- ▶ Blasting (as needed)
- ▶ Construction traffic within the easements

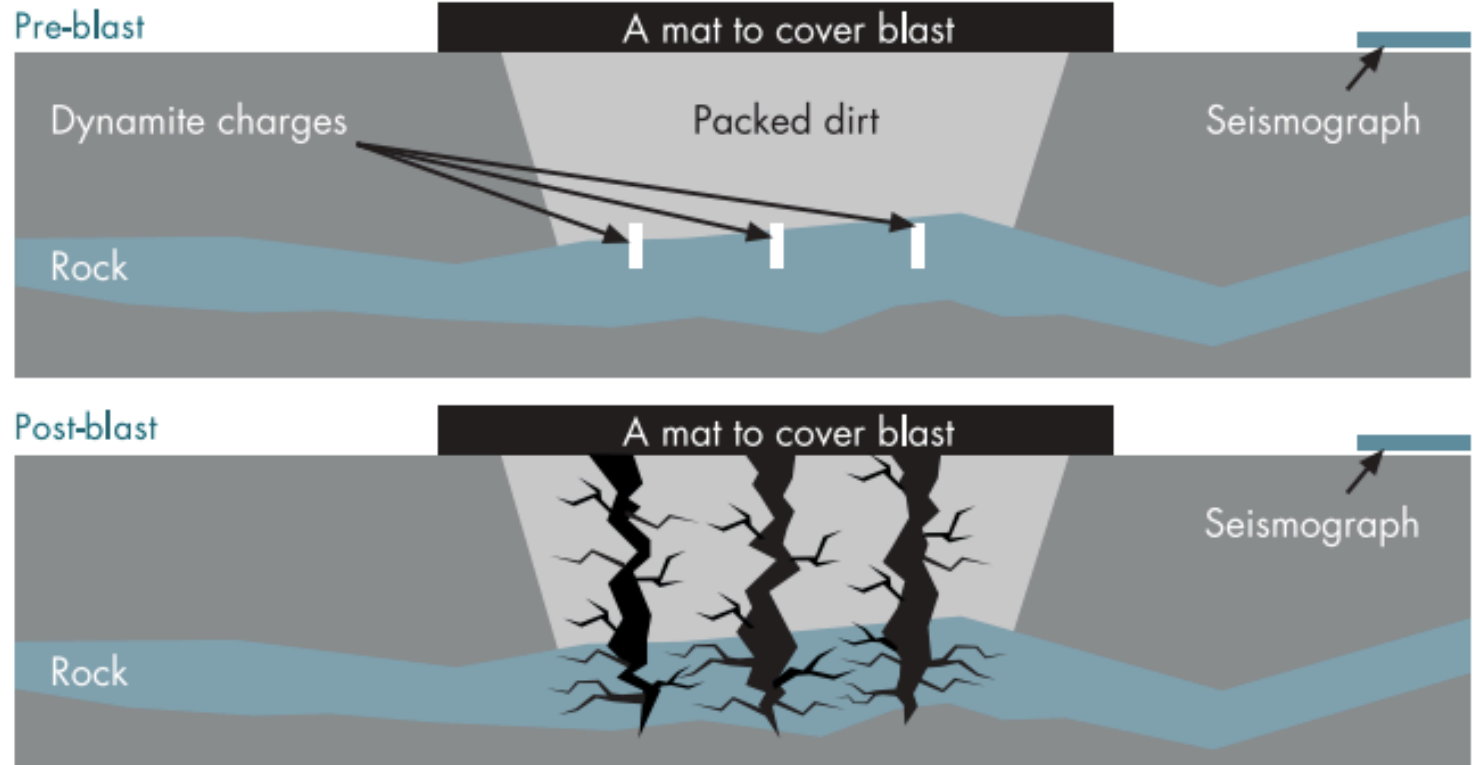
# What is Blasting?

- ▶ Removal of underground rock by use of small controlled blasting
- ▶ Blasting is a standard construction procedure
- ▶ Seismograph monitors will record all vibrations to ensure they are within specifications
- ▶ Impacted property owners will have opportunity for pre- and post-blast surveys

# What does blasting look like?



Heavy mats are placed on the blasting area to prevent flying debris.



Residents may hear a warning horn, a muffled noise, and slight vibration or rumble similar to a slammed door or thunder.



# Mobilization & Preparation

## MOBILIZATION AND SITE PREPARATION



Silt fencing prevents soil /sediment from washing away.

## CONSTRUCTION ZONE



Construction zones will be large enough for excavators and dump trucks to move.

# Active Construction

## PIPE CONSTRUCTION



24-inch wastewater pipe project under a street.



Manholes vary in size depending on the amount of wastewater a community creates.



# Construction & Restoration

## DURING CONSTRUCTION/AFTER RESTORATION



Charlotte Country Club Golf Course during construction and immediately following restoration.



# Restoration



# Next Steps

- ▶ Intermediate repairs construction: ongoing through the month of May
- ▶ Pre-blast surveys for phase 1: ongoing through May 2021
- ▶ Mobilization and construction for phase 1: May/June 2021

# Stay Connected

- ▶ Visit project webpage: [bit.ly/LittleHopeCreek](https://bit.ly/LittleHopeCreek)
- ▶ Mailers and door hangers
- ▶ Text updates
  - Text **littlehopecreek** to **844-753-0614**
- ▶ Neighborhood/homeowners' associations
- ▶ Nextdoor

# Project Contact

- ▶ Project Manager, Stephen Scott, PE
  - Stephen Scott, Charlotte Water  
[Stephen.Scott@charlottenc.gov](mailto:Stephen.Scott@charlottenc.gov), 980-219-9488

# Q&A Session

